



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,996	07/07/2003	Tommy Olaus Johnson	NAHIP66403.011.01	9812
28875	7590	06/25/2008		
Zilka-Kotab, PC P.O. BOX 721120 SAN JOSE, CA 95172-1120				
EXAMINER				
GELAGAY, SHEWAYE				
ART UNIT		PAPER NUMBER		
2137				
MAIL DATE		DELIVERY MODE		
06/25/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/612,996

Applicant(s)

JOHNSON ET AL.

Examiner

SHEWAYE GELAGAY

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-30, 32-50, 52-60 and 62-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-30, 32-50, 52-60, and 62-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This office action is in response to Applicant's amendment filed on March 27, 2008. Claims 1, 21 and 41 have been amended. Claims 1-10, 12-30, 32-50, 52-60, and 62-64 are pending.

Response to Arguments

2. Applicant's arguments filed March 27, 2008 have been fully considered but they are not persuasive. In response to the applicant's argument the following comments are made:

3. The applicant argued Tso fails to meet applicant's claimed "receiving request from the computer malware scanning software for data comprising randomly accessed portion of the requested file selected in a random order by the computer malware scanning software from among portions of the file and based on a portion of the file to be scanned by the computer malware scanning software." (see 35 U.S.C. 112 second paragraph rejection given below) The examiner disagrees. Tso teaches a virus checker may be implemented as a software module installed on network device or on a separate device coupled to network device. Virus checking is implemented in a manner intended to maximize efficient transfer of data from server to client device. Content server will transmit a requested data object as a series of contiguous portions. Virus checker performs virus checking on the requested file as portions are received from content server. (col.2, line 38-col. 3, line 54) Applicant specification on page 4, line 18-page 5, line 2 teaches that "The requested portion of the requested file may not be transferred

because the requested portion of the requested file cannot be randomly accessed. An indication that the requested portion of the requested file cannot be randomly accessed may comprise an error indication or a transfer of the entire requested file." Claims are to be given their broadest interpretation in light of the specification, the examiner has interpreted from the above teaching that "randomly accessed portion of the requested file" can comprise any message other than an error indication or transfer of an entire requested file. Therefore, Tso teaches receiving a request from the malware scanning software for data comprising randomly accessed portion of the requested file. (i.e. a requested data object as a series of contiguous portions) Tso further teaches objects in cache storage may include a virus checking status indicator and a pattern version number ... then when a request for a cached object is received, virus checker need only check the parts of the virus pattern file that have changed since the data object was cached. Tso further teaches retrieving a data object to be downloaded to the client, scanning the data object for a computer virus and downloading the data object to the client if no computer virus is detected, wherein the data object is segmented into a series of contiguous portions, retrieving, scanning and downloading steps being performed for each of said contiguous portions. (col. 5, lines 27-42; col. 9, lines 1-8)

The applicant further argued that Fielding reference does not specifically teach a technique "wherein the randomly accessed portion of the file is requested utilizing a byte range technique". The examiner disagrees. Fielding teaches if a client has a partial copy of an entity in its cache (i.e. randomly accessed portion of a file), and wishes to up-

to-date copy of the entire entity in its cache, it could use range request (i.e. byte range) with a conditional GET. (page 82, 14.27 If-Range)

The applicant argued that that prior art cited does not teach "tracking information associated with each transfer of a requested portion of the file". Tso teaches cache storage may include a virus checking status indicator and a pattern version number ... then when a request for a cached object is received, virus checker need only check the parts of the virus pattern file that have changed since the data object was cached. (col. 5, lines 27-42) Fielding also teaches if the client has no entity tag for an entity, but does not have last modified date, it may use the date in If-range header. Checking entity tag and modified date is adequate to meet the claimed limitation (i.e. tracking information)

4. The applicant argued that prior art does not teach a technique "wherein the byte range technique turns a serial download mechanism into a random access file mechanism". The examiner would like to point out claims are to be given their broadest reasonable interpretation in light of the supporting disclosure. Accordingly, defined in the dictionary "serial means arranged in a series" and "random means having no specific pattern (any order)". Fielding teaches a client that has one or more entities previously obtained from the resource can verify that one of those entities is current by including a list of their associated entity tags in the If-Match header field. The purpose of this feature is to allow efficient updates of cached information with a minimum amount of transaction overhead. It is also used, on updating requests, to prevent inadvertent modification of the wrong version of a resource. If any of the entity tags match the entity tag of the entity that would have been returned in the response to a similar GET request

(without the If-Match header) on that resource, or if*** is given and any current entity exists for that resource, then the server MAY perform the requested method as if the If-Match header field did not exist. A server MUST use the strong comparison function to compare the entity tags in If-Match. If none of the entity tags match, or if*** is given and no current entity exists, the server MUST NOT perform the requested method, and MUST return a 412 (Precondition Failed) response. The If-Modified-Since request-header field is used with a method to make it conditional: if the requested variant has not been modified since the time specified in this field, an entity will not be returned from the server; instead, a 304 (not modified) response will be returned without any message-body. If-Modified-Since = "If-Modified-Since" HTTP-date. If the variant has been modified since the If-Modified-Since date, the response is exactly the same as for a normal GET. (page 80; 14.24 and 14.25)

5. Fielding further teaches if a client has a partial copy of an entity in its cache, and wishes to have an up-to-date copy of the entire entity in its cache, it could use the Range request-header with a conditional GET (using either or both of If-Unmodified-Since and If-Match.) However, if the condition fails because the entity has been modified, the client would then have to make a second request to obtain the entire current entity-body. The If-Range header allows a client to "short-circuit" the second request. Informally, its meaning is "if the entity is unchanged, send me the part(s) that I am missing; otherwise, send me the entire new entity. (page 82, If-Range)
6. The applicant argued that the prior art is also deficient with "determining that the requested portion of the requested file cannot be transferred; and transferring an

entirety of the requested file and supplying the requested data to the computer malware scanning software to fulfill the request for data comprising a portion of the requested file" and "wherein the requested portion of the requested file cannot be transferred because the requested portion of the requested file cannot be randomly accessed."

Fielding teaches a client that has one or more entities previously obtained from the resource can verify that one of those entities is current by including a list of their associated entity tags in the If-Match header field. The purpose of this feature is to allow efficient updates of cached information with a minimum amount of transaction overhead. It is also used, on updating requests, to prevent inadvertent modification of the wrong version of a resource. If any of the entity tags match the entity tag of the entity that would have been returned in the response to a similar GET request (without the If-Match header) on that resource, or if*** is given and any current entity exists for that resource, then the server MAY perform the requested method as if the If-Match header field did not exist. A server MUST use the strong comparison function to compare the entity tags in If-Match. If none of the entity tags match, or if*** is given and no current entity exists, the server MUST NOT perform the requested method, and MUST return a 412 (Precondition Failed) response. The If-Modified-Since request-header field is used with a method to make it conditional: if the requested variant has not been modified since the time specified in this field, an entity will not be returned from the server; instead, a 304 (not modified) response will be returned without any message-body. If-Modified-Since = "If-Modified-Since" HTTP-date. If the variant has been modified since the If-Modified-Since date, the response is exactly the same as for a normal GET.

The If-Range header allows a client to "short-circuit" the second request. Informally, its meaning is 'if the entity is unchanged, send me the part(s) that I am missing; otherwise, send me the entire new entity. (page 80; 14.24 and 14.25; page 82, If-Range)

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Since the applicant amended the claims towards the transferring of requested file rather than the scanning of a requested file, the examiner would like to point out Fielding discloses HTTP file transfer protocol consistent with applicant's specification that teaches extensive use of HTTP file transfer protocol. Specifically applicant teaches on page 15, "The HTTP specification defines a number of mechanisms for transferring portions of requested files or entities. For example, HTTP retrieval requests using conditional or unconditional GET methods may request one or more sub-ranges of the entity, instead of the entire entity, using the Range request header..." The examiner has pointed out in the paragraphs discussed above the interpretation of some of the claimed language that is consistent with the specification, claims languages are given their broadest reasonable interpretation in view of the specification. Therefore, the examiner asserts that cited prior art does teach or suggest the subject matter broadly recited in independent and dependent claims.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1, 21 and 41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 21 and 41 recite, "randomly accessed portion of the requested file selected in a random order by the computer malware scanning software from among portions of the file and based on a portion of the file to be scanned ...". It is unclear if "randomly accessed portion of the requested file" is the same as "portion of the file to be scanned" or not. Furthermore, it is unclear how exactly "randomly accessed portion of the requested file" is selected in a random order based on "portion of the file to be scanned." The claim language does not set forth the relationship and/or the difference between "a requested file", "a file", "randomly accessed portion of the requested file", "portions of the file" and "portion of the file to be scanned." Appropriate action is required.

Claim Rejections - 35 USC § 101

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 41-50, 52-60 and 62-64 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 41 recites "a computer readable storage medium", which according to the specification page 23,

includes " a variety of forms and that the present invention applies equally regardless of the particular type signal bearing media actually used to carry out the distribution.

Example of computer readable media includestransmission-type media, such as digital and analog communications signal." A signal does not fall within one of the four category classes set forth in 35 U.S.C. 101. Because the full scope of the claim as properly read in light of the disclosure encompasses non-statutory subject matter, the claim as a whole is non-statutory.

11. Claims 42-50, 52-60 and 62-64 inherit the defects of claim 41 and are also rejected for the same reason set forth above.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10, 12-30, 32-50, 52-60, and 62-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tso et al. (hereinafter Tso) US Patent 6,088,803 in view of Fielding et al. "Hypertext Transfer Protocol -- HTTP/1.1", RFC, June 1999, (hereinafter Fielding).

As per claims 1, 21 and 41

Tso teaches a method of scanning a requested file for a computer malware comprising the steps of:

receiving a request to transfer a file from computer malware scanning software;
(col. 2, lines 16-67)

receiving a request from the computer malware scanning software for data comprising a randomly accessed portion of the requested file selected in a random order by the computer malware scanning software from among portions of the file and based on a portion of the file be scanned by the computer malware scanning software;
(col. 3, lines 10-54; col. 5, lines 1-43; *see 35 U.S.C 112 second paragraph rejection above*) and

transferring the requested portion of the file and supplying the requested data to the computer malware scanning software to fulfill the request for data comprising a portion of the requested file; (col. 3, lines 10-54; col. 5, lines 1-43)

Tso does not explicitly disclose wherein the randomly accessed portion of the file is requested utilizing a byte range technique; tracking information with each transfer of a requested portion of the file; and determining whether the file has changed; wherein the byte range technique turns a serial download mechanism into a random access file mechanism. Fielding in analogous art, however discloses wherein the randomly accessed portion of the file is requested utilizing a byte range technique; tracking information with each transfer of a requested portion of the file; and determining whether the file has changed; wherein the byte range technique turns a serial download mechanism into a random access file mechanism. (page 80; 14.24 and 14.25; pages 82-

83, Section 14.27: If-Range; Pages 85-86, Section 14.35 Range) Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device disclosed by Tso with Fielding in order to request one or more sub-ranges of a file, instead of the entire file, using the range request header to have an up-to-date copy of the entire file. (page 82, 14.27 If-Range; Fielding)

As per claims 2, 22 and 42:

The combination of Tso and Fielding teaches all the subject matter as discussed above. In addition, Tso further discloses a method wherein the request to transfer the file from the computer malware scanning software comprises a request to transfer the file from an external system. (col. 2, lines 22-25)

As per claims 3-4, 23-24 and 43-44:

The combination of teaches all the subject matter as discussed above. In addition, Tso further discloses a method wherein the external system is communicatively connected via a network. (figure 1)

As per claims 5, 18, 25, 38, 45 and 58:

The combination of Tso and Fielding teaches all the subject matter as discussed above. In addition, Fielding further discloses a method wherein the step of transferring the requested portion of the file comprises the step of: initiating a session with the external system to obtain the requested portion of the file. (pages 82-83, Section 14.27: If-Range; Pages 85-86, Section 14.35 Range)

As per claims 6, 19, 26, 39, 46 and 59:

The combination of Tso and Fielding teaches all the subject matter as discussed above. In addition, Fielding further discloses a method wherein the session is a hypertext transfer protocol session. (pages 82-83, Section 14.27: If-Range; Pages 85-86, Section 14.35 Range)

As per claims 15, 35 and 55:

The combination of Tso and Fielding teaches all the subject matter as discussed above. In addition, Tso further discloses a method comprising the step of: performing the steps of claim 1 in response to a request from a user system for the file. (col. 2, lines 16-67)

As per claims 16, 36 and 56:

The combination of Tso and Fielding teaches all the subject matter as discussed above. In addition, Tso further discloses a method comprising the steps of: scanning at the computer malware scanning software the data comprising a portion of the requested file to determine if the file includes a computer malware; (col. 3, lines 10-54) and delivering the file to the user system in response to determining that the file does not include a computer malware. (col. 3, lines 38-65)

As per claims 17, 37 and 57:

The combination of Tso and Fielding teaches all the subject matter as discussed above. In addition, Fielding further discloses a method wherein the step of delivering the file to the user system comprises the steps of: determining whether the entire file has been transferred; (pages 82-83, Section 14.27: If-Range; Pages 85-86, Section 14.35 Range) starting delivery of the file to the user system even if the entire file has not been

transferred; (pages 82-83, Section 14.27: If-Range; Pages 85-86, Section 14.35 Range) and transferring those portions of the file that have not been transferred and delivering those portions of the file once they have been transferred. (pages 82-83, Section 14.27: If-Range; Pages 85-86, Section 14.35 Range)

As per claims 7, 20, 27, 40, 47 and 60:

The combination of Tso and Fielding teaches all the subject matter as discussed above. In addition, Fielding further discloses wherein the hypertext transfer protocol session uses the byte range technique. (pages 82-83, Section 14.27: If-Range; Pages 85-86, Section 14.35 Range)

As per claims 8, 28 and 48:

The combination of Tso and Fielding teaches all the subject matter as discussed above. In addition, Fielding further discloses a method comprising the steps of: determining that the requested portion of the requested file cannot be transferred; (pages 82-83, Section 14.27: If-Range; Pages 85-86, Section 14.35 Range) and transferring an entirety of the requested file and supplying the requested data to the computer malware scanning software to fulfill the request for data comprising a portion of the requested file. (pages 82-83, Section 14.27: If-Range; Pages 85-86, Section 14.35 Range)

As per claims 9, 29 and 49:

The combination of Tso and Fielding teaches all the subject matter as discussed above. In addition, Fielding further discloses a method wherein the requested portion of the requested file cannot be transferred because the requested portion of the requested

file cannot be randomly accessed. (pages 82-83, Section 14.27: If-Range; Pages 85-86, Section 14.35 Range)

As per claims 10, 30 and 50:

The combination of Tso and Fielding teaches all the subject matter as discussed above. In addition, Fielding further discloses a method wherein an indication that the requested portion of the requested file cannot be randomly accessed comprises an error indication or a transfer of the entire requested file. (pages 82-83, Section 14.27: If-Range; Pages 85-86, Section 14.35 Range)

As per claims 12, 32 and 52

The combination of Tso and Fielding teaches all the subject matter as discussed above. In addition, Fielding further discloses a method wherein the information comprises hypertext transfer protocol entity tags or last modified timestamp information. (pages 82-83, Section 14.27: If-Range; Pages 85-86, Section 14.35 Range)

As per claims 13, 33 and 53:

The combination of Tso and Fielding teaches all the subject matter as discussed above. In addition, Tso further teaches a method comprising the step of: restarting the requests from the computer malware scanning software for data. (col. 3, lines 10-54)

As per claims 14, 34 and 54:

The combination of Tso and Fielding teaches all the subject matter as discussed above. In addition, Fielding further discloses a method comprising the step of: transferring an entirety of the requested file. (pages 82-83, Section 14.27: If-Range; Pages 85-86, Section 14.35 Range)

As per claim 62:

The combination of Tso and Fielding teaches all the subject matter as discussed above. In addition, Tso further teaches a method wherein the data associated with the request from the computer malware scanning software comprises a plurality of selected randomly accessed portions of the requested file. (col. 3, lines 10-54; col. 5, lines 1-43)

As per claim 63:

The combination of Tso and Fielding teaches all the subject matter as discussed above. In addition, Tso further teaches a method wherein the plurality of randomly accessed portions of the requested file are read in a random order. (col. 3, lines 10-54; col. 5, lines 1-43)

3. Claims 64 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tso et al. (hereinafter Tso) US Patent 6,088,803 in view of Fielding et al. "Hypertext Transfer Protocol -- HTTP/1.1" (hereinafter Fielding) and further in view of Ji et al. (hereinafter Ji) U.S. Patent Number 6,728,886.

As per claim 64:

The combination of Tso and Fielding teaches all the subject matter as discussed above. Both references do not explicitly disclose a method wherein a system call handler intercepts system level calls made by the computer malware scanning software and simulates system level function calls utilized by the computer malware scanning software to determine whether the file includes the computer malware. Ji in analogous art, however, discloses a system call handler intercepts system level calls made by the computer malware scanning software and simulates system level function calls utilized

by the computer malware scanning software to determine whether the file includes the computer malware. (col. 6, line 5-col. 8, line 10) Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device disclosed by Tso and Fielding with Ji Guthrie in order to provide additional security by intercepting http messages enabling browser with additional functionality without modifying the browser. (page 82, 14.27 If-Range; Fielding)

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHEWAYE GELAGAY whose telephone number is (571)272-4219. The examiner can normally be reached on 8:00 am to 5:30 pm.

Art Unit: 2137

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on 571-272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. G./
Examiner, Art Unit 2137

/Emmanuel L. Moise/
Supervisory Patent Examiner, Art Unit 2137